



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/603,339	06/26/2000	James Alan Strothmann	RCA-88878	2228

24498 7590 02/21/2007
JOSEPH J. LAKS, VICE PRESIDENT
THOMSON LICENSING LLC
PATENT OPERATIONS
PO BOX 5312
PRINCETON, NJ 08543-5312

EXAMINER

SHANG, ANNAN Q

ART UNIT	PAPER NUMBER
----------	--------------

2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/603,339

Applicant(s)

STROTHMANN ET AL.

Examiner

Annan Q. Shang

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9-17,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-17,19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-6, 9-17 and 19-20 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's arguments, Kanazawa discloses storing titles information and information management table (MEG-2 video, audio, subpicture, etc.,) on DVD (40) and transmitting the bitstream to receiving units (STB or IRD) and displays individual streams (ST-1 to ST-2) with interactive regions that when selected (via a Web Mark) causes display of other DVD subpicture graphics associated with the subpicture compliant bitstreams (figs.10A-13C, col.4, line 50-col.5, line 63, col.6, line 14-col.7, line 46 and col.14, line 40-col.16, line 40). Kanazawa is silent to where a user interacts directly to the regions within the subpicture, however this deficiency is disclosed in **Adolph** reference figures 1-4, where audio and video decoder decodes audio, video and sub-picture from DVD bitstream and a display interface that allows a user to interact directly to a plurality of interactive regions within the decoded subpicture to display other presentation information (col.6, line 64-col.7, line 33, line 41-55 and col.8, line 27-col.9, line 9), as discussed above in the office action. **This office action is non-final.**

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2623

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 9-11, 14-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kanazawa et al (6,580,870)** in view of **Adolph et al (6,370,323)**.

As to claims 1-2, note the **Kanazawa** reference figures 1-2, discloses systems and methods for reproducing audiovisual information with external information and further discloses a method for providing graphics for display, the claimed method comprises the following:

receiving a bitstream (Set top box 'STB' or IRD, 'a digital interface' col.8, lines 48-65) including an MPEG compliant program bitstream and a DVD subpicture compliant bitstream (figs.1-2 and 12, col.4, line 45-col.5, line 34 and col.7, lines 11-30);

extracting (CPU-1, col.6, lines 32-col.7, line 10) and decoding (MPEG-Decoder 112, col.10, line 55-col.11, line 15) the MPEG compliant bitstream to generate a program image signal (figs.10A-13C, 19A-B, col.14, lines 40-54 and col.15, lines 32-67);

extracting (CPU-1) and decoding (MPEG-Decoder 112, col.10, line 55-col.11, line 15) DVD subpicture compliant bitstream to generate a graphic image signal (col.17, line 50-col.18, line 23);

combining the program image signal and the graphic image signal to provide and output display signal (VGA Controller 113, 'a display processor' col.14, line 55-col.15, line 31),

Kanazawa discloses storing titles information and information management table (MEG-2 video, audio, subpicture, etc.,) on DVD (40) and displays individual streams

Art Unit: 2623

(ST-1 to ST-2) with interactive regions that when selected (via a Web Mark) causes display of other DVD subpicture graphics associated with the subpicture compliant bitstreams (figs.10A-13C, col.4, line 50-col.5, line 63, col.6, line 14-col.7, line 46 and col.14, line 40-col.16, line 40), note that MPEG bit data and DVD bit data and transmitting over Internet to a receiver and furthermore discloses embodiment where invention is applied to TV broadcasting or CATV network, where a provider transmits the bitstream and a STB or IRD with an MPEG Decoder/DVD Decoder 112 decodes the bitstream and reproduces the video, audio, subpicture, etc.

Kanazawa fails to explicitly teach where a user interacts directly to the regions within the subpicture.

However, note the **Adolph** reference figures 1-4, discloses and audio and video decoder for decoding audio, video and sub-picture from DVD bitstream where a user interacts directly to a plurality of interactive regions within the decoded subpicture to display other presentation information (col.6, line 64-col.7, line 33, line 41-55 and col.8, line 27-col.9, line 9).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Adolph into the system of Kanazawa to enable the user to interact directly to the interacts regions within the subpicture to retrieve additional information.

As to claim 3, Kanazawa further discloses where at least one of the DVD subpicture compliant bitstreams is buffered (col.14, lines 40-54 and col.15, lines 11-18)

Art Unit: 2623

As to claim 4, Kanazawa further discloses where at least one of the DVD subpicture compliant bitstreams repeats in the MPEG bitstream (figs.12, 18 and col.7, lines 11-30 and col.14, line 33+)

As to claim 5, Kanazawa further discloses where the DVD subpicture compliant bitstream comprises an MPEG still image (col.5, lines 1-54 and col.11, line 16+)

As to claim 6, Kanazawa further discloses where the DVD subpicture compliant bitstream comprises a program guide (col.5, lines 1-54).

Claim 9 is met as previously discussed with respect to claim 1

As to claim 10, the claimed "a video signal processing apparatus..." is composed of the same structural elements that were discussed in the rejection of claim 1.

Claim 11 is met as previously discussed with respect to claim 1.

Claim 14 is met as previously discussed with respect to claim 3.

Claim 15 is met as previously discussed with respect to claim 1.

Claim 16 is met as previously discussed with respect to claim 3.

Claim 17 is met as previously discussed with respect to claim 6.

As to claim 19, the claimed "a video signal processing apparatus..." is composed of the same structural elements that were discussed in the rejection of claim 1.

As to claim 20, Kanazawa further discloses where the bitstream from the remote signal source further comprises at least a two MPEG compliant program bitstreams transmitted substantially concurrently by the remote signal source (col.5, lines 1-54 and col.11, line 16+ and col.14, line 40-col.16, line 40).

Art Unit: 2623

4. Claim 12, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kanazawa et al (6,580,870)** in view of **Adolph et al (6,370,323)** as applied to claim 10 above, and further in view of **Yanagihara et al (6,211,800)**.

As to claim 12, Kanazawa as modified by Adolph, fail to specifically teach where the receiving means comprises a digital interface and demodulator coupled to the digital interface and the MPEG decoder, where the digital interface is IEEE 1394 digital Interface.

However, note **Yanagihara** reference figure 5, disclose Data that is an MPEG program stream (PS) read out from a disc is supplied to a PS/TS Converter via a variable rate control section and PS/TS Converter converts the PS MPEG data into a transport stream (TS) and transmits it to a presentation device via a 1394 transmission/reception section where the 1394 transmission/reception section of the presentation device is classified by a DEMUX section, an audio, video decoder that decodes TS MPEG data and D/A converters that converts resulting digital data into analog signals and output the analog signals, note col. 5, line 43-col. 6, line 20.

Therefore the examiner submits it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Yanagihara into the system of Kanazawa as modified by Adolph in order provide and high speed interface that transfers good quality video with low bandwidth.

5. Claim 13, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kanazawa et al (6,580,870)** in view of **Adolph et al (6,370,323)** as applied to claim 10 above, and further in view of **Suzuki (6,344,836)**.

As to claim 13, Kanazawa as modified by Adolph, fail to specifically teach where the receiving means comprises a digital interface and demodulator coupled to the digital interface and where the digital interface is a USB digital interface.

However, note the **Suzuki** reference figure 1, disclose an information browsing system with one system device and a plurality of displays connected to the system device by a USB digital interface, note figure 1 and col. 5, lines 10-23 and col.6, line 6-20.

Therefore the examiner submits it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of into the system of Suzuki into the system of Kanazawa as modified by Adolph in order to provide a digital interface that easily connects devices together.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Watamoto et al (6,392,695) disclose image display device.

Yamauchi et al (6,393,202) disclose optical disc for which a sub-picture can be superimposed.

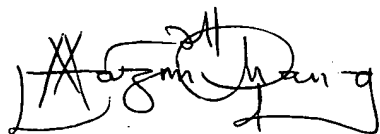
Stahl (7,068,920) discloses digital base-band interface for DVD player.

Art Unit: 2623

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q. Shang** whose telephone number is **571-272-7355**. The examiner can normally be reached on **700am-400pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher S. Kelley** can be reached on **571-272-7331**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197 (toll-free)**. If you would like assistance from a **USPTO Customer Service Representative** or access to the automated information system, call **800-786-9199 (IN USA OR CANADA)** or **571-272-1000**.

A handwritten signature in black ink, appearing to read 'Annan Q. Shang', with a stylized flourish at the end.

Annan Q. Shang